

SEQUENCE LISTING

<110> The Horticulture and Food Research Institute of NZ

<120> Seedless Fruit Production

<130> 26329 MRB

<140>

<141>

<150> NZ337688

<151> 1999-09-07

<160> 7

<170> PatentIn Ver. 2.1

<210> 1

<211> 868

<212> DNA

<213> Malus domestica

<220>

<221> CDS

<222> (1)..(648)

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agg cag gtg acc tac tcc aag agg agg aat ggg att atc aag aag gca	96
Arg Gln Val Thr Tyr Ser Lys Arg Arg Asn Gly Ile Ile Lys Lys Ala	
20 25 30	
aag gag atc act gtt cta tgt gat gct aaa gta tct ctt atc att tat	144
Lys Glu Ile Thr Val Leu Cys Asp Ala Lys Val Ser Leu Ile Ile Tyr	
35 40 45	
tct agc tct ggg aag atg gtt gaa tac tgc agc cct tca act acg ctg	192
Ser Ser Ser Gly Lys Met Val Glu Tyr Cys Ser Pro Ser Thr Thr Leu	
50 55 60	
aca gaa atc ttg gac aaa tac cat gga caa tct ggg aag aag ttg tgg	240
Thr Glu Ile Leu Asp Lys Tyr His Gly Gln Ser Gly Lys Lys Leu Trp	
65 70 75 80	
gat gct aag cat gag aac ctc agc aat gaa gtg gat aga gtc aag aaa	288
Asp Ala Lys His Glu Asn Leu Ser Asn Glu Val Asp Arg Val Lys Lys	
85 90 95	
gac aat gac agc atg caa gta gag ctc agg cat ctg aag gga gag gat	336
Asp Asn Asp Ser Met Gln Val Glu Leu Arg His Leu Lys Gly Glu Asp	
100 105 110	
atc aca tca ttg aac cat gta gag ctg atg gcc tta gag gaa gca ctt	384

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Ile Thr Ser Leu Asn His Val Glu Leu Met Ala Leu Glu Glu Ala Leu
    115                                120                                125

gaa aat ggc ctt aca agt atc cgg gac aag cag tcc aag ttc gtc gac   432
Glu Asn Gly Leu Thr Ser Ile Arg Asp Lys Gln Ser Lys Phe Val Asp
    130                                135                                140

atg atg aga gac aat gga aag gca ctg gaa gat gag aat aag cgc ctc   480
Met Met Arg Asp Asn Gly Lys Ala Leu Glu Asp Glu Asn Lys Arg Leu
    145                                150                                155                                160

act tat gag ctg caa aaa caa cag gag atg aaa ata aaa gag aat gtg   528
Thr Tyr Glu Leu Gln Lys Gln Gln Glu Met Lys Ile Lys Glu Asn Val
    165                                170                                175

aga aac atg gaa aat ggg tat cat cag agg cag ctg ggg aac tac aac   576
Arg Asn Met Glu Asn Gly Tyr His Gln Arg Gln Leu Gly Asn Tyr Asn
    180                                185                                190

aac aac cag cag cag ata cct ttt gcc ttc cgc gtg cag cct att cag   624
Asn Asn Gln Gln Gln Ile Pro Phe Ala Phe Arg Val Gln Pro Ile Gln
    195                                200                                205

cca aat ctc cag gag aga atc taa ttagatatat cttgcatttg catgctcttt 678
Pro Asn Leu Gln Glu Arg Ile
    210                                215

ctaactagtt atattatctc tccacctctc tctctctttt catctgtcaa ggagttctta 738

agtttatgtc agatttccaa tggtttgtaa tggaattagc ttcgttatga ggctttgttg 798

tgaaccttgt aataattaag gcgtgcatga actcgggttg tgggaaaaaaaa aaaaaaaaaa 858

aaaaaaaaaa 868

<210> 2
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<212> PRT
<213> Malus domestica

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Arg Gln Val Thr Tyr Ser Lys Arg Arg Asn Gly Ile Ile Lys Lys Ala
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Lys Glu Ile Thr Val Leu Cys Asp Ala Lys Val Ser Leu Ile Ile Tyr
  35          40          45
Ser Ser Ser Gly Lys Met Val Glu Tyr Cys Ser Pro Ser Thr Thr Leu
  50          55          60
Thr Glu Ile Leu Asp Lys Tyr His Gly Gln Ser Gly Lys Lys Leu Trp
  65          70          75          80
Asp Ala Lys His Glu Asn Leu Ser Asn Glu Val Asp Arg Val Lys Lys
  85          90          95
Asp Asn Asp Ser Met Gln Val Glu Leu Arg His Leu Lys Gly Glu Asp
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Ile Thr Ser Leu Asn His Val Glu Leu Met Ala Leu Glu Glu Ala Leu

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      115              120              125
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Met Met Arg Asp Asn Gly Lys Ala Leu Glu Asp Glu Asn Lys Arg Leu
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Thr Tyr Glu Leu Gln Lys Gln Gln Glu Met Lys Ile Lys Glu Asn Val
      165              170              175
Arg Asn Met Glu Asn Gly Tyr His Gln Arg Gln Leu Gly Asn Tyr Asn
      180              185              190
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Pro Asn Leu Gln Glu Arg Ile
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<213> Malus domestica

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<220>
<221> CDS
<222> (1)..(699)

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agg cag gtg acc tac tcc aag aga aga aat ggg atc ttc aag aag gct 96
Arg Gln Val Thr Tyr Ser Lys Arg Arg Asn Gly Ile Phe Lys Lys Ala
      20              25              30

cag gag ctc acc gtt ctc tgt gat gcc aag gtc tcc ctc att atg ctc 144
Gln Glu Leu Thr Val Leu Cys Asp Ala Lys Val Ser Leu Ile Met Leu
      35              40              45

tcc aac act aat aaa atg cac gag tat atc agc cct acc act acg acc 192
Ser Asn Thr Asn Lys Met His Glu Tyr Ile Ser Pro Thr Thr Thr Thr
      50              55              60

aag agt atg tat gat gac tat cag aaa act atg ggg atc gat ctg tgg 240
Lys Ser Met Tyr Asp Asp Tyr Gln Lys Thr Met Gly Ile Asp Leu Trp
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agg aca cac gag gag tcg atg aaa gac acc ttg tgg aag ttg aaa gag 288
Arg Thr His Glu Glu Ser Met Lys Asp Thr Leu Trp Lys Leu Lys Glu
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atc aac aat aag ctg agg aga gag atc agg cag agg ttg ggc cat gat 336
Ile Asn Asn Lys Leu Arg Arg Glu Ile Arg Gln Arg Leu Gly His Asp
      100              105              110

cta aat ggc ctg agc ttt gac gag ctg gct tct ctt gac gat gag atg 384
Leu Asn Gly Leu Ser Phe Asp Glu Leu Ala Ser Leu Asp Asp Glu Met
      115              120              125

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cag tct tcc ttg gat gcc ata cgt caa agg aag tac cat gtg atc aaa 432
 Gln Ser Ser Leu Asp Ala Ile Arg Gln Arg Lys Tyr His Val Ile Lys
 130 135 140
 act cag acg gag acc acc aag aag aag gtt aag aac ttg gag caa aga 480
 Thr Gln Thr Glu Thr Thr Lys Lys Lys Val Lys Asn Leu Glu Gln Arg
 145 150 155 160
 aga gga aac atg ctg cat ggc tat ttt gac cag gaa gca gcc ggc gag 528
 Arg Gly Asn Met Leu His Gly Tyr Phe Asp Gln Glu Ala Ala Gly Glu
 165 170 175
 gat cca cag tat ggt tat gag gac aat gag gga gac tac gaa tct gca 576
 Asp Pro Gln Tyr Gly Tyr Glu Asp Asn Glu Gly Asp Tyr Glu Ser Ala
 180 185 190
 ctt gca ttg tca aat ggg gcg aat aac ttg tac act ttc cac ctc cac 624
 Leu Ala Leu Ser Asn Gly Ala Asn Asn Leu Tyr Thr Phe His Leu His
 195 200 205
 cac cct aac ctc cac cac gga gga agc tcg ctc ggc tcc tcc att act 672
 His Pro Asn Leu His His Gly Gly Ser Ser Leu Gly Ser Ser Ile Thr
 210 215 220
 cat ctg cac gat ctc cgc ctt gct tga tcgtgatctg agatatgatt 719
 His Leu His Asp Leu Arg Leu Ala
 225 230
 aatcatcact aagttatata ttaaggtoac ttataactgc ttttgctcta aagtgtttgc 779
 ttggtgacta tctttaggca aggagttaga cttggactac ctctgaaaaa agatgcataa 839
 atatgtgtgt ggtgttttaa tcaatgatag cactaaaaaa atccgcgccc ttgttgcttg 899
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<210> 4
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 <213> Malus domestica

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 Arg Gln Val Thr Tyr Ser Lys Arg Arg Asn Gly Ile Phe Lys Lys Ala
 20 25 30
 Gln Glu Leu Thr Val Leu Cys Asp Ala Lys Val Ser Leu Ile Met Leu
 35 40 45
 Ser Asn Thr Asn Lys Met His Glu Tyr Ile Ser Pro Thr Thr Thr Thr
 50 55 60
 Lys Ser Met Tyr Asp Asp Tyr Gln Lys Thr Met Gly Ile Asp Leu Trp
 65 70 75 80
 Arg Thr His Glu Glu Ser Met Lys Asp Thr Leu Trp Lys Leu Lys Glu

	85		90		95
Ile	Asn	Asn	Lys	Leu	Arg
	100		105		110
Leu	Asn	Gly	Leu	Ser	Phe
	115		120		125
Gln	Ser	Ser	Leu	Asp	Ala
	130		135		140
Thr	Gln	Thr	Glu	Thr	Thr
	145		150		155
Arg	Gly	Asn	Met	Leu	His
	165		170		175
Asp	Pro	Gln	Tyr	Gly	Tyr
	180		185		190
Leu	Ala	Leu	Ser	Asn	Gly
	195		200		205
His	Pro	Asn	Leu	His	His
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His	Leu	His	Asp	Leu	Arg
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 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Made in lab

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 <222> (14)
 <223> n represents a, c, g, or t.

<220>
 <221> allele
 <222> (17)
 <223> n represents a, c, g, or t.

<220>
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 <222> (20)
 <223> n represents a, c, g, or t.

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25

<210> 6
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Made in lab

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<223> n represents a, c, g, or t.

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<221> allele
<222> (22)
<223> n represents a, c, g, or t.

<220>
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<222> (28)
<223> n represents a, c, g, or t.

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<210> 7
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Made in lab

<400> 7
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